

### **ABSTRACT**

A rigid structural foil and a method for forming a rigid structural foil is provided. The structural foil includes at least two layers of metal sheets, valley areas and spacers. The metal sheet layers include metal foil having a thickness of 0.006 in. The valley areas are disposed between compressed and uncompressed portions of the structural foil formed during compression of portions of the structural foil. In addition to the valley areas, the structural foil includes spacers. The spacers within the metal sheet layers provide spacing between portions of the metal layers such that the structural foil functions as both a heat shield and an acoustic shield.